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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|----------------------|--------------------|
| 10/035,738 | 11/07/2001 | John W. Ladd | 4584.1US (00-0787.1) | 4327 |
| 24247 | 7590 | 11/12/2004 | EXAMINER | |
| TRASK BRITT P.O. BOX 2550 SALT LAKE CITY, UT 84110 | | | | CHANG, RICK KILTAE |
| | | ART UNIT | | PAPER NUMBER |
| | | | | 3729 |

DATE MAILED: 11/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|------------------------|---------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/035,738 | LADD, JOHN W. |
| | Examiner | Art Unit |
| | Rick K. Chang | 3729 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 03 August 2004.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 10 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-9 and 11-20 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
2. Claims 1-9 and 11-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The disclosure, as originally filed, fails to provide support for “a temporary electrical contact with at least one semiconductor device”, “establishing temporary . . . device”, “permitting and . . . as the temporary electrical contact is maintained”, and “magnetically drawing . . . to maintain the temporary electrical contact” (claims 1 and 8).
3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 1-9 and 11-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 8 includes limitations to a particular electrical connectivity using time frame as follows: “a temporary electrical contact with at least one semiconductor device”, “establishing temporary . . . device”, “permitting and . . . as the temporary electrical contact is

maintained”, and “magnetically drawing . . . to maintain the temporary electrical contact”. The time frame of the connectivity cannot be determined without knowing what is “permanent” time frame relative to “temporary”, and the patent record discloses as being they are permanently connected. They render the claims vague and indefinite as well as competitors would be unable to discern the bounds of the invention.

NOTE: no rejection is given to the limitations “a temporary electrical contact with at least one semiconductor device”, “establishing temporary . . . device”, “permitting and . . . as the temporary electrical contact is maintained”, and “magnetically drawing . . . to maintain the temporary electrical contact”.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-9 and 11-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Degani et al (US 6,370,766) in view of Butherus et al (US 3,612,955), and further in view of Official Notice.

Degani discloses electrically testing during bun-in testing the plurality of electrical components by applying test signals to the width linear array of electrical contacts, which includes heating the components to an elevated temperature while applying an electrical bias to the components.

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Degani fails to disclose magnetically drawing at least one of the first member and the at least one contact toward the other of the first member and the at least one contact as well as burn-in testing either heating cycling or variously as disclosed in claims 1-9 and 11-20.

Butherus discloses in Figs. 1A-1B and 2 a semiconductor device 59 surrounded with ferromagnetic materials to provide attraction both vertically and laterally.

Official Notice is taken that it is well known in the art to provide during burn-in testing heat is provide either cycling or variously to purposely fail the component.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Butherus by magnetically drawing at least one of the first member and the at least one contact toward the other of the first member and the at least one contact as well as burn-in testing either heating cycling or variously as disclosed in claims 1-9 and 11-20, as taught by Butherus and Official Notice, for the purpose of properly aligning the components to the assigned electrical pads and determining whether the components are functioning properly or not before the final assembly is performed to improve customer satisfaction.

Response to Arguments

7. Applicant's arguments filed 8/3/04 have been fully considered but they are not persuasive.

Re 112 arguments: Applicants are relying on the knowledge of one of ordinary skill in the art to rationalize the temporary electrical contact. Examiner maintains his rejection. Examiner maintains that it is not possible for one of ordinary skill in the art to gleam from the specification to expect the electrical contact to be temporary since there are many other electrical systems that are tested with permanent electrical contact. Further, the term "temporary" is

defined by the applicants to occur only during the burn-in testing phase. However, it is well known in the art to test an electrical system by using a probe by contacting designated electrical contacts during the entire manufacturing process to ensure their reliability. This can be done after mounting, soldering and wire bonding IC chips to a PCB. Therefore, it is unreasonable for one of ordinary skill in the art to expect the electrical contact to be “temporary” as noted in the claim since there are many different scenarios. In addition, Examiner incorporated the Degani reference as an example of many different testing methods.

Re 103 rejection arguments: Examiner maintains his rejections. As noted above in the note section, no rejection is given to the limitations “a temporary electrical contact with at least one semiconductor device”, “establishing temporary . . . device”, “permitting and . . . as the temporary electrical contact is maintained”, and “magnetically drawing . . . to maintain the temporary electrical contact”. The Degani reference is used in conjunction with the Butherus reference to show that it is critical to test an electrical device during manufacturing steps to ensure reliability.

Examiner maintains that the electrical system as shown in the Butherus reference is capable of electrical communication.

Interviews After Final

- 8. Applicant note that an interview after a final rejection must be submitted briefly in writing the intended purpose and content of the interview (the agenda of the interview must be in writing). Upon review of the agenda, the Examiner may grant the interview if the examiner is convinced that disposal or clarification for appeal may be accomplished**

with only nominal further consideration. Interviews merely to restate arguments of record or to discuss new limitations will be denied. See MPEP 714.13 and 713.09.

Conclusion

9. **Please provide reference numerals (either in parentheses next to the claimed limitation or in a table format with one column listing the claimed limitation and another column listing corresponding reference numerals in the remark section of the response to the Office Action) to all the claimed limitations as well as support in the disclosure for better clarity (optional).** Applicants are duly reminded that a full and proper response to this Office Action that includes any amendment to the claims and specification of the application as originally filed requires that the applicant point out the support for any amendment made to the disclosure, including the claims. See 37 CFR 1.111 and MPEP 2163.06.

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rick K. Chang whose telephone number is (703) 308-4784. The examiner can normally be reached on 5:30 AM to 1:30 PM, Monday through Thursday.

The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9302 for regular communications and (703) 872-9303 for After Final communications.



RICHARD CHANG
PRIMARY EXAMINER

RC
November 8, 2004